



Montana Department of
ENVIRONMENTAL QUALITY

MAILED
8-18-05 *ju*

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

August 17, 2005

Mr. John Rundquist
Public Works Director
City of Helena
316 North Park Avenue
Helena, MT 59623

RE: June 2005 Ground Water Monitoring Results, Old Helena Landfill, License Number 90

Dear Mr. Rundquist:

The Solid Waste Program received the June 2005 Groundwater Monitoring Results on August 10, 2005. It was assigned to Mary Louise Hendrickson for review. I anticipate that you will receive a response from Ms. Hendrickson within 90 days.

If you have any questions on the review status or the results, please contact Ms. Hendrickson directly at 406-444-1808, or by email at mhendrickson@mt.gov. If you have any other issues or questions, please contact me at 406-444-5345, or at rithompson@mt.gov

Sincerely

Rick Thompson, Supervisor
Waste Management Section
Waste and Underground Tank Management Bureau

MAILED



Montana Department of
ENVIRONMENTAL QUALITY

MAILED

4-12-05 JH

Brian Schweitzer, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

¹⁹
April ~~12~~, 2005

Mr. John Rundquist
Public Works Director
City of Helena
316 North Park Avenue
Helena, MT 59623

RE: September and December 2004 Ground Water Monitoring Results, Old Helena Landfill,
License Number 90

Dear Mr. Rundquist:

The Solid Waste Program received the September and December 2004, Groundwater Monitoring Statistical Analysis on April 13, 2005. It was assigned to Mary Louise Hendrickson for review. I anticipate that you will receive a response from Ms. Hendrickson within 90 days.

If you have any questions on the review status or the results, please contact Ms. Hendrickson directly at 406-444-1808, or by email at mhendrickson@mt.gov. If you have any other issues or questions, please contact me at 406-444-5345, or at rithompson@mt.gov

Sincerely

Rick Thompson, Supervisor
Waste Management Section
Waste and Underground Tank Management Bureau

MAILED

Montana Department of
ENVIRONMENTAL QUALITY



Butte, Montana 59701

Butte, Montana 59701 • Phone: (406) 241-1344 • Fax: (406) 241-1344

April 12, 1993

Mr. John R. Johnson
Butte Waste Disposal
City of Butte
200 North Park Avenue
Butte, MT 59701

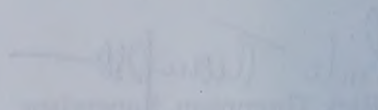
Re: September and December 1992 Great Water Protection Report, 15 June 1993.
1. Review of Report

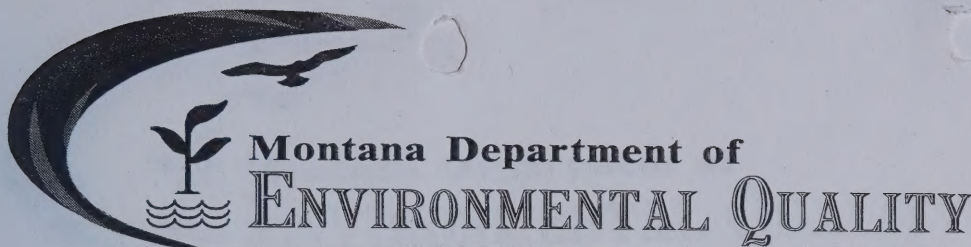
Dear Mr. Johnson:

The Solid Waste Program received the September and December 1992 Great Water Protection Report on April 12, 1993. It was assigned to Mary L. Johnson for review. I anticipate that you will receive a response from the Department within 30 days.

If you have any questions on the review status of the report, please contact Mr. Johnson at (406) 241-1344, or by email at mjohnson@mtdeq.gov. If you have any other comments, please contact me at (406) 241-1344, or at johnson@mtdeq.gov.

Sincerely,


Bill Thompson, Supervisor
Waste Management Section
Waste and Landfill Management Division



MAILED

18-15-041 *Sh*

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

October 15, 2004

Mr. John Rundquist
Public Works Director
City of Helena
316 North Park Avenue
Helena, MT 59623

RE: Ground Water Monitoring Results, Old Helena Landfill, License Number 90

Dear Mr. Rundquist:

The Solid Waste Program received your statistical analysis for the March and June 2004 monitoring results and the field Data for the September 2004 event for the Old Helena Landfill on October 13th and 7th, 2004, respectively. It was assigned to our staff for review. I anticipate that you will receive a response from them within 90 days.

For your information, Ms. Pat Potts is no longer with the Waste Management Section. She has accepted a position with the Water Protection Bureau.

If you have any questions on the review status or the results, please contact Mr. Pat Crowley directly at 406-444-5294, or by email at pcrowley@state.mt.us. If you have any other issues or questions, please contact me at 406-444-5345, or at rithompson@state.mt.us.

Sincerely

Rick Thompson, Supervisor
Waste Management Section
Waste and Underground Tank Management Bureau

MAILED

RECEIVED

October 15, 1964

Mr. J. Edgar Hoover
Federal Bureau of Investigation
Washington, D.C. 20535

Re: [Illegible]

Dear Mr. Hoover:

[Illegible text block]

[Illegible text block]

[Illegible text block]

Sincerely,

[Illegible signature and address block]



Montana Department of
ENVIRONMENTAL QUALITY

MAILED
6-7-04 Jh

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

June 10, 2004

Mr. John Rundquist
Public Works Director
City of Helena
316 North Park Avenue
Helena, MT 59623

RE: June Ground Water Monitoring Plan, Old Helena Landfill, License Number 90

Dear Mr. Rundquist:

The Solid Waste Program received the June Groundwater Monitoring Plan on June 3, 2004. It was assigned to Patricia Potts for review. I anticipate that you will receive a response from Ms. Potts within 10 days.

If you have any questions on the review status or the results, please contact Ms. Potts directly at 406-444-0538, or by email at ppotts@state.mt.us. If you have any other issues or questions, please contact me at 406-444-5345, or at rithompson@state.mt.us.

Sincerely

Rick Thompson, Supervisor
Waste Management Section
Waste and Underground Tank Management Bureau

MAILED

Montana Department of
ENVIRONMENTAL QUALITY



June 10, 1984

Mr. John R. Anderson
State Water Director
1201 North
100 North Park Avenue
Helena, MT 59622

Re: Your General Water Monitoring Plan, Old Helena Facility, License Number 90

Dear Mr. Anderson:

The State Water Program received the General Water Monitoring Plan on June 1, 1984. It was forwarded to the State Water Director for review. I anticipate that you will receive a response from the State Water Director in due time.

If you have any questions or need further information on the review process, please contact Mr. John R. Anderson at 444-4444 or at 444-4444. If you have any other questions or need further information, please contact Mr. John R. Anderson at 444-4444 or at 444-4444.

Sincerely,

John R. Anderson
State Water Director
1201 North
100 North Park Avenue
Helena, MT 59622



Montana Department of
ENVIRONMENTAL QUALITY

MAILED
6-1-04 Jh

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

June 1, 2004

John Rundquist
City of Helena
316 North Park
Helena, Montana 59623

**RE: LEWIS & CLARK COUNTY, CITY OF HELENA CLASS II (CLOSED)
LANDFILL – LICENSE NO. 90 GROUND WATER MONITORING – RECEIPT
AND REVIEW OF THE MARCH 12, 2004 QUARTERLY ANALYTICAL DATA.**

Dear Mr. Rundquist:

The Department has reviewed the data from the March 12, 2004, quarterly ground water monitoring event conducted at the City of Helena (closed) Landfill. This submittal meets the corrective measures quarterly sampling requirements according to the Administrative Rules of Montana, Title 17, Chapter 50, Subchapter 7.

I may be contacted at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Waste Management Section, phone (406)444-0538.

Sincerely,

Pat Potts
Environmental Specialist– Solid Waste Program

cc: Jodi Bingham, Hydrometrics, Inc., Helena, MT

F:\Cb5652\Word\swl&c\hel304.doc

INITIALS Q³ DATE 5/25/04
SW OUTGOING CORRESPONDENCE

NEW APPLICATION Initial / Date
Janet H _____
Rick T _____

INSPECTIONS Initial / Date
Pat C _____
Janet H _____
Rick T _____

CLOSURES Initial / Date
Janet H _____
Rick T _____

FEES Initial / Date
Janet H _____
Rick T _____

COMPLAINTS Initial / Date
Pat C _____
Janet H _____
Rick T _____

✓ GROUND WATER Initial / Date
Pat C 5/27
Janet H 5-27
Rick T 5-30-04

GEN CORRESPONDENCE Initial / Date
Janet H _____
Rick T _____

MISCELLANEOUS Initial / Date

Lewis & Clark Co
City of Helena #90 (closed)
grd w/ mon (corresp)



Montana Department of
ENVIRONMENTAL QUALITY

MAILED

5-19-04 *gh*

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

May 19, 2004

Mr. John Rundquist
Public Works Director
City of Helena
316 North Park Avenue
Helena, MT 59623

RE: March Ground Water Monitoring Report, Old Helena Landfill, License Number 90

Dear Mr. Rundquist:

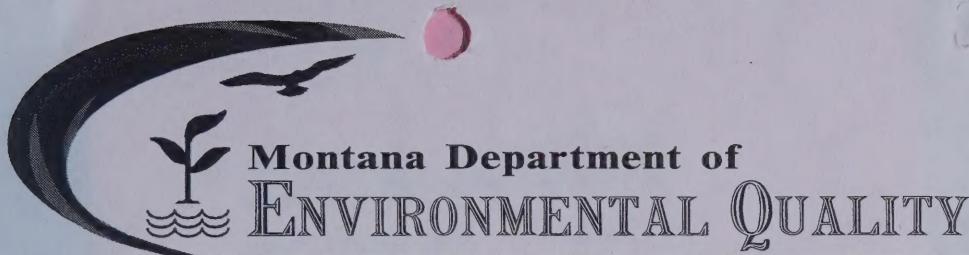
The Solid Waste Program received the March Groundwater Monitoring Report on April 30, 2004. It was assigned to Patricia Potts for review. I anticipate that you will receive a response from Ms. Potts within 90 days.

If you have any questions on the review status or the results, please contact Ms. Potts directly at 406-444-0538, or by email at ppotts@state.mt.us. If you have any other issues or questions, please contact me at 406-444-5345, or at rithompson@state.mt.us.

Sincerely

Rick Thompson, Supervisor
Waste Management Section
Waste and Underground Tank Management Bureau

MAILED



MAILED
3-22-04 gh

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

March 19, 2004

John Rundquist
City of Helena
316 North Park
Helena, Montana 59623

**RE: LEWIS & CLARK COUNTY, CITY OF HELENA CLASS II (CLOSED)
LANDFILL – LICENSE NO. 90 GROUND WATER MONITORING – RECEIPT
AND REVIEW OF THE DECEMBER 2003 ANALYTICAL DATA.**

Dear Mr. Rundquist:

The Department has reviewed the data from the December 15, 16, and 17, 2003, semi-annual ground water monitoring event conducted at the City of Helena (closed) Landfill. This submittal meets the basic requirements for our analytical data review according to the Administrative Rules of Montana, Title 17, Chapter 50, Subchapter 7.

I may be contacted at the Permitting and Compliance Division, Waste and Underground Tank Management Bureau, Waste Management Section, phone (406)444-0538.

Sincerely,

Pat Potts
Environmental Specialist– Solid Waste Program

cc: Jodi Bingham, Hydrometrics, Inc., Helena, MT

F:\Cb5652\Word\swl&c\hel1203.doc

INITIALS ³ 3 DATE 3/19/04
SW OUTGOING CORRESPONDENCE

NEW APPLICATION Initial / Date
Janet H _____
Rick T _____

INSPECTIONS Initial / Date
Pat C _____
Janet H _____
Rick T _____

CLOSURES Initial / Date
Janet H _____
Rick T _____

FEES Initial / Date
Janet H _____
Rick T _____

COMPLAINTS Initial / Date
Pat C _____
Janet H _____
Rick T _____

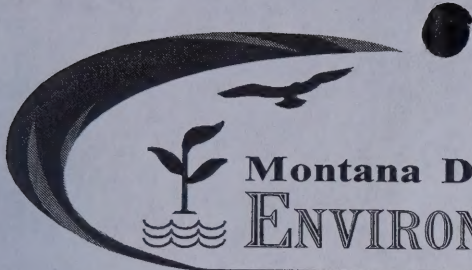
✓ GROUND WATER Initial / Date
Pat C Pat 3/19
Janet H Jan 3-19
Rick T R 3/19/04

GEN CORRESPONDENCE Initial / Date
Janet H _____
Rick T _____

MISCELLANEOUS Initial / Date

Lewis + Clark Co
City of Helena #90 (closed)
get with mon (corresp)

430' M15 T10



Montana Department of
ENVIRONMENTAL QUALITY

MAILED

3-18-04 *jh*

Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.state.mt.us

March 8, 2004

Mr. John Rundquist
Public Works Director
City of Helena
316 North Park Avenue
Helena, MT 59623

RE: December Ground Water Monitoring Report, Old Helena Landfill, License Number 90

Dear Mr. Rundquist:

The Solid Waste Program received the December Groundwater Monitoring Report on March 5, 2004. It was assigned to Patricia Potts for review. I anticipate that you will receive a response from Ms. Potts within 90 days.

If you have any questions on the review status or the results, please contact Ms. Potts directly at 406-444-0538, or by email at ppotts@state.mt.us. If you have any other issues or questions, please contact me at 406-444-5345, or at rithompson@state.mt.us.

Sincerely

Rick Thompson, Supervisor
Waste Management Section
Waste and Underground Tank Management Bureau

MAILED

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**STATISTICAL EVALUATION OF SEPTEMBER
2005 AND DECEMBER 2005 GROUNDWATER
QUALAITY DATA**

MARCH 2006

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 27**

RECEIVED 3/22/2006

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF DECEMBER 2005
GROUNDWATER SAMPLING**

JANUARY 2006

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 27**

RECEIVED 2/1/2006



THE
FEDERAL BUREAU OF INVESTIGATION
OF THE DEPARTMENT OF JUSTICE

MEMORANDUM

TO : DIRECTOR, FBI
FROM : SAC, NEW YORK

SUBJECT: [Illegible]

RE: [Illegible]
[Illegible]
[Illegible]

DATE: [Illegible]



Hydrometrics, Inc.
consulting scientists and engineers

3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

November 29, 2005

BT *Miller*
RECEIVED

NOV 30 2005

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Ms. Mary Hendrickson
Environmental Science Specialist
Montana Department of Environmental Quality
Permitting and Compliance Division
Waste & Underground Tank Management Bureau
Solid Waste Program
P.O. Box 200901
Helena, MT 59620

Dear Mary,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the December 2005 semiannual groundwater monitoring at the Helena Landfill. There are no changes from the December 2004 sampling regime. Sampling personnel will be attempting to sample the week of December 7. Please call if you have any questions or comments.

Sincerely,

Jodi Bingham, P.E.
Environmental Engineer/Chemist

c: John Rundquist, City of Helena
Bill Michaelson, City of Helena
Mike Wignot, Hydrometrics

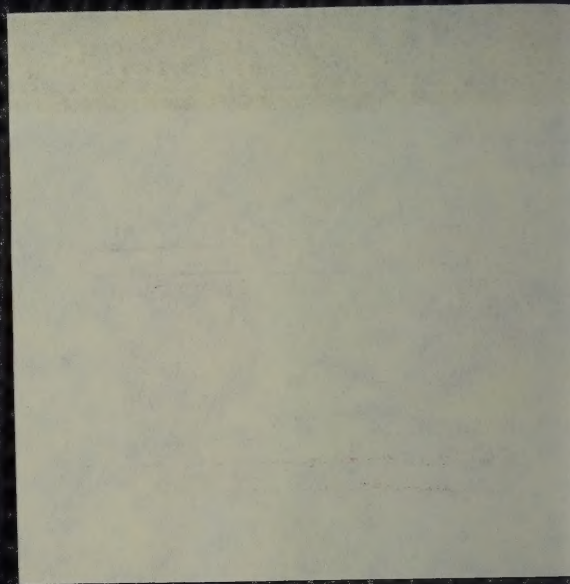
**HELENA LANDFILL
DECEMBER 2005 SAMPLE SITE AND PARAMETER LIST**

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
83-6	Table 1
HL-94-1	Table 1
HL-94-2	Table 1
HL-90-3	Table 1
HL-90-3 (duplicate)	Table 1
INF. GALLERY	Table 1 VOC's only
HL-94-3	Table 1
MPC-2	Table 1 VOC's only
HL-90-2	Table 1
HL-99-3	Table 1
EPA-1	Table 1
HL-99-2	Table 1
MPC-1	Table 1
MPC-5	Table 1
HL-99-1	Table 1
I-4	Table 1 VOC's only
HL-90-1	Table 1
Residential Wells:	
5	Table 1 VOC's only
16	Table 1 VOC's only
40	Table 1 VOC's only
48	Table 1 VOC's only
52	Table 1 VOC's only
57	Table 1 VOC's only
62	Table 1 VOC's only
90	Table 1 VOC's only
Quality Control:	
Trip Blank	Table 1
Rinsate Blank	Table 1

(1) Monitoring wells are listed in the order to be sampled.

Closed file

County Lewis and Clark
Facility & # # 90
Closure Landfarm
Finan Assur City of Helena
GW Corr Meas Liner
GW Monitoring Methane
GW Reports O & M
Inspections Run - On
Other: _____



**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF SEPTEMBER 2005
GROUNDWATER SAMPLING**

OCTOBER 2005

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 27**

RECEIVED 10/13/2005

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**STATISTICAL EVALUATION OF MARCH 2005
AND JUNE 2005 GROUNDWATER QUALITY
DATA**

SEPTEMBER 2005

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 27**

RECEIVED 9/22/2005

REPORT
OF THE
COMMISSIONER OF THE
LAND OFFICE
TO THE
LEGISLATIVE COUNCIL

1900-1901

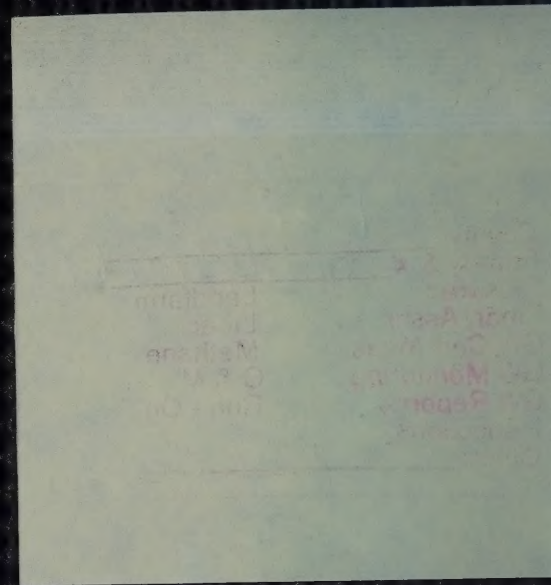
AND
AN
APPENDIX
CONTAINING
A
LIST
OF
THE
LANDS
ACQUIRED
DURING
THE
YEAR

1900-1901

IN
THE
LANDS
OFFICE
DURING
THE
YEAR
1900-1901

1900-1901

LEC
County LEC
Facility & # Old Helina LF
Closure Landfarm
Finan Assur Liner
GW Corr Meas Methane
GW Monitoring O & M
GW Reports Run - On
Inspections
Other: _____

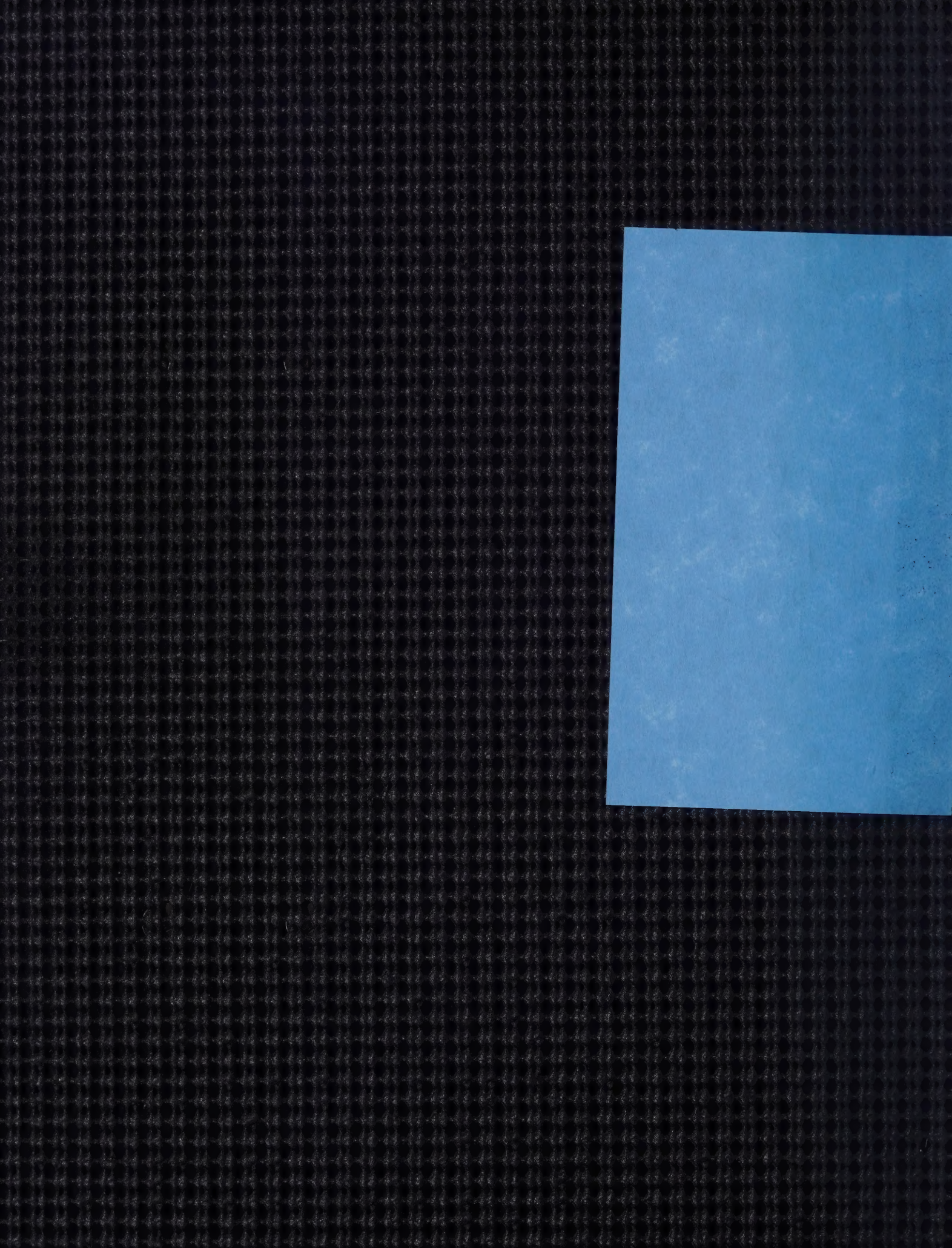


Specific
sample data

Called

9/13/05

10 40





Hydrometrics, Inc.
consulting scientists and engineers

3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

RECEIVED

September 1, 2005

SEP 06 2005

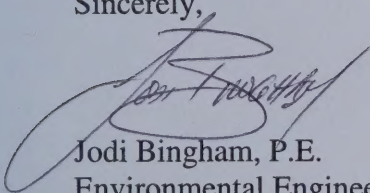
Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Ms. Mary Hendrickson
Environmental Science Specialist
Montana Department of Environmental Quality
Permitting and Compliance Division
Waste & Underground Tank Management Bureau
Solid Waste Program
P.O. Box 200901
Helena, MT 59620

Dear May,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the September 2005 quarterly groundwater monitoring at the Helena Landfill. Well 5 is being sampled as part of the City's Action Plan for tetrachloroethene (PCE) in downgradient domestic wells. Please call if you have any questions or comments.

Sincerely,



Jodi Bingham, P.E.
Environmental Engineer/Chemist

(X/72)

c: John Rundquist, City of Helena
Bill Michaelson, City of Helena
Mike Wignot, Hydrometrics

UNITED STATES DEPARTMENT OF AGRICULTURE

REPORT OF THE	COMMISSIONER OF THE
GENERAL INVESTIGATION	OF THE
UNITED STATES DEPARTMENT OF AGRICULTURE	OF THE

**HELENA LANDFILL
SEPTEMBER 2005 SAMPLE SITE AND PARAMETER LIST**

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
HL-99-3	Table 1 VOC's only
HL-99-2	Table 1 VOC's only
HL-99-1	Table 1 VOC's only
HL-90-1	Table 1 VOC's only
5	Table 1 VOC's only

(1) Wells are listed in the order to be sampled.

HELIX LAMP OCTOBER 1957 SAMPLE SITE AND CHARACTERISTICS

Site Name	Characteristics
HL-10-1	Table 1 only
HL-10-2	Table 1 only
HL-10-3	Table 1 only
HL-10-4	Table 1 only
HL-10-5	Table 1 only
HL-10-6	Table 1 only

(1) With no limit on the number of samples

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF JUNE 2005 GROUNDWATER
SAMPLING**

AUGUST 2005

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 27**

RECEIVED 8/10/2005

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF MARCH 2005 GROUNDWATER
SAMPLING**

MAY 2005

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 27**

RECEIVED 5/20/2005

UNITED STATES
DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION

MEMORANDUM

TO : DIRECTOR, FBI (100-371091)
FROM : SAC, NEW YORK (100-100000)

SUBJECT: [REDACTED]

RE: NEW YORK TELETYPE TO BUREAU, 1/11/61.
ADVISES THAT [REDACTED] [REDACTED] [REDACTED]
[REDACTED] [REDACTED] [REDACTED]

ADMINISTRATIVE

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**STATISTICAL EVALUATION OF SEPTEMBER
2004 AND DECEMBER 2004 GROUNDWATER
QUALITY DATA**

MARCH 2005

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 26**

RECEIVED 4/13/2005



Hydrometrics, Inc.

consulting scientists and engineers

3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

81
RECEIVED

February 23, 2005

FEB 24 2005

Ms. Pat Potts
Montana Department of Environmental Quality
Permitting and Compliance Division
WMD / SWP
P.O. Box 200901
Helena, MT 59620

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Dear Pat,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the March 2005 quarterly groundwater monitoring at the Helena Landfill. Well 5 is being sampled as part of the City's Action Plan for tetrachloroethene (PCE) in downgradient domestic wells. Please call if you have any questions or comments.

Sincerely,

Jodi Bingham, P.E.
Environmental Engineer/Chemist

c: John Rundquist, City of Helena
Bill Michaelson, City of Helena
Mike Wignot, Hydrometrics

**HELENA LANDFILL
MARCH 2005 SAMPLE SITE AND PARAMETER LIST**

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
HL-99-3	Table 1 VOC's only
HL-99-2	Table 1 VOC's only
HL-99-1	Table 1 VOC's only
HL-90-1	Table 1 VOC's only
5	Table 1 VOC's only

(1) Wells are listed in the order to be sampled.

SEARCH FOR SAMPLES AND PARAMETERS LIST

Sample Name	Parameter
HL 90-1	Time / VOC only
HL 90-2	Time / VOC only
HL 90-3	Time / VOC only
HL 90-4	Time / VOC only
HL 90-5	Time / VOC only

HL 90-1 to HL 90-5 are the only samples



Hydrometrics, Inc.
consulting scientists and engineers

3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

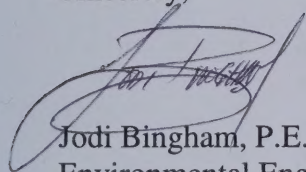
May 31, 2005

Ms. Mary Hendrickson
Environmental Science Specialist
Montana Department of Environmental Quality
Permitting and Compliance Division
Waste & Underground Tank Management Bureau
Solid Waste Program
P.O. Box 200901
Helena, MT 59620

Dear Mary,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the June 2005 semiannual groundwater monitoring at the Helena Landfill. There are no changes from the December 2004 sampling regime. Please call if you have any questions or comments.

Sincerely,



Jodi Bingham, P.E.

Environmental Engineer/Chemist

c: John Rundquist, City of Helena
Bill Michaelson, City of Helena
Mike Wignot, Hydrometrics

Rf
RECEIVED

JUN 01 2005

DEPT. OF ENVIRO. QUALITY
WASTE & UNDERGROUND TANK
MANAGEMENT BUREAU

HELENA LANDFILL
JUNE 2005 SAMPLE SITE AND PARAMETER LIST

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
83-6	Table 1
HL-94-1	Table 1
HL-94-2	Table 1
HL-90-3	Table 1
HL-90-3 (duplicate)	Table 1
INF. GALLERY	Table 1 VOC's only
HL-94-3	Table 1
MPC-2	Table 1 VOC's only
HL-90-2	Table 1
HL-99-3	Table 1
EPA-1	Table 1
HL-99-2	Table 1
MPC-1	Table 1
MPC-5	Table 1
HL-99-1	Table 1
I-4	Table 1 VOC's only
HL-90-1	Table 1
Residential Wells:	
5	Table 1 VOC's only
16	Table 1 VOC's only
40	Table 1 VOC's only
48	Table 1 VOC's only
52	Table 1 VOC's only
57	Table 1 VOC's only
62	Table 1 VOC's only
90	Table 1 VOC's only
Quality Control:	
Trip Blank	Table 1
Rinsate Blank	Table 1

(1) Monitoring wells are listed in the order to be sampled.

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF DECEMBER 2004
GROUNDWATER SAMPLING**

FEBRUARY 2005

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 26**

RECEIVED 2/4/2005

90

County L+C
Facility & # Helena closed
Closure Landfarm
Finan Assur Liner
GW Corr Meas Methane
GW Monitoring O & M
GW Reports Run - On
Inspections
Other: _____





Hydrometrics, Inc.
consulting scientists and engineers

3020 Bozeman Avenue
Helena, MT 59601
(406) 443-4150
Fax: (406) 443-4155
www.hydrometrics.com

November 30, 2004

Ms. Pat Potts
Montana Department of Environmental Quality
Permitting and Compliance Division
Waste and Underground Tank Management Bureau
Waste Management Section
P.O. Box 200901
Helena, MT 59620

Dear Pat,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the December 2004 semiannual groundwater monitoring at the Helena Landfill. There are no changes from the June 2004 sampling regime. Please call if you have any questions or comments.

Sincerely,

Jodi Bingham, P.E.
Environmental Engineer/Chemist

c: John Rundquist, City of Helena
Bill Michaelson, City of Helena
Mike Wignot, Hydrometrics

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DEC 1 2004
Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA

REPORT OF THE COMMITTEE ON THE NATIONAL ACADEMY OF SCIENCES
OF THE UNITED STATES OF AMERICA

Table 1	Table 2
Table 1 VOG/2012	Table 2 VOG/2012
Table 1 VOG/2012	Table 2 VOG/2012
Table 1 VOG/2012	Table 2 VOG/2012
Table 1 VOG/2012	Table 2 VOG/2012

**HELENA LANDFILL
DECEMBER 2004 SAMPLE SITE AND PARAMETER LIST**

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
83-6	Table 1
HL-94-1	Table 1
HL-94-2	Table 1
HL-90-3	Table 1
HL-90-3 (duplicate)	Table 1
INF. GALLERY	Table 1 VOC's only
HL-94-3	Table 1
MPC-2	Table 1 VOC's only
HL-90-2	Table 1
HL-99-3	Table 1
EPA-1	Table 1
HL-99-2	Table 1
MPC-1	Table 1
MPC-5	Table 1
HL-99-1	Table 1
I-4	Table 1 VOC's only
HL-90-1	Table 1
Residential Wells:	
5	Table 1 VOC's only
16	Table 1 VOC's only
40	Table 1 VOC's only
48	Table 1 VOC's only
52	Table 1 VOC's only
57	Table 1 VOC's only
62	Table 1 VOC's only
90	Table 1 VOC's only
Quality Control:	
Trip Blank	Table 1
Rinsate Blank	Table 1

(1) Monitoring wells are listed in the order to be sampled.

INFLUENZA LABORATORY INFLUENZA VIRUS ISOLATION AND IDENTIFICATION

Influenza Virus Isolation and Identification		Reference
Influenza Virus Isolation and Identification	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
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	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
Influenza Virus Isolation and Identification	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
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	Table 1	Table 1
	Table 1	Table 1
Influenza Virus Isolation and Identification	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
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	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1
	Table 1	Table 1

Table 1: Influenza Virus Isolation and Identification

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**STATISTICAL EVALUATION OF MARCH 2004
AND JUNE 2004 GROUNDWATER QUALITY
DATA**

SEPTEMBER 2004

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 26**

RECEIVED 10/13/2004



THE NATIONAL ACADEMY OF SCIENCES
OF THE UNITED STATES OF AMERICA

MEMORANDUM FOR THE RECORD

TO THE NATIONAL ACADEMY OF SCIENCES
FROM THE NATIONAL ACADEMY OF SCIENCES
DATE

RE: [Illegible]

IN ORDER TO BE EFFECTIVE
THE FOLLOWING ACTION IS RECOMMENDED
BY THE NATIONAL ACADEMY OF SCIENCES

APPROVED FOR THE RECORD

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF SEPTEMBER 2004
GROUNDWATER SAMPLING**

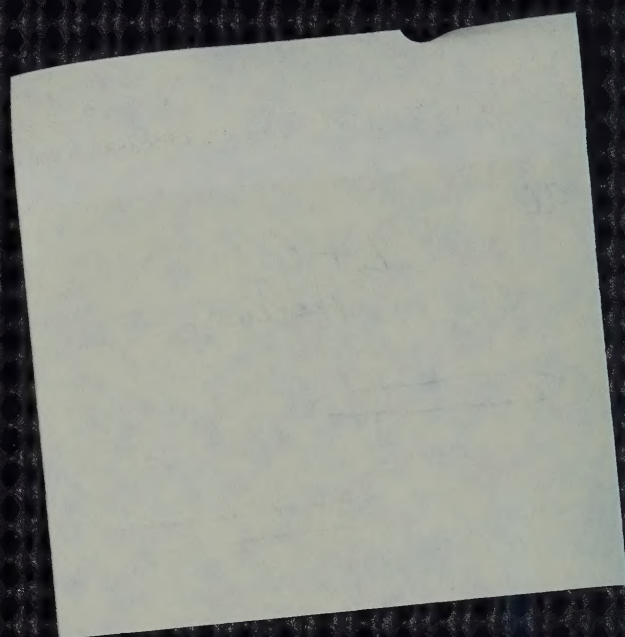
OCTOBER 2004

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 26**

RECEIVED 10/6/2004

90

County L+C
Facility & # Helina
Closure Landfarm
Finan Assur Liner
GW Corr Meas Methane
GW Monitoring O & M
GW Reports Run - On
Inspections
Other: _____





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August 30, 2004

BT
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AUG 31 2004

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Ms. Pat Potts
Montana Department of Environmental Quality
Permitting and Compliance Division
WMD / SWP
P.O. Box 200901
Helena, MT 59620

Dear Pat,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the September 2004 quarterly groundwater monitoring at the Helena Landfill. Well 5 is being sampled as part of the City's Action Plan for tetrachloroethene (PCE) in downgradient domestic wells. Please call if you have any questions or comments.

Sincerely,

Alex M. Bargmeyer, EIT
Civil/Environmental Engineer

c: John Rundquist, City of Helena
Mike Wignot, City of Helena

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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HELENA LANDFILL
SEPTEMBER 2004 SAMPLE SITE AND PARAMETER LIST

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
HL-99-3	Table 1 VOC's only
HL-99-2	Table 1 VOC's only
HL-99-1	Table 1 VOC's only
HL-90-1	Table 1 VOC's only
5	Table 1 VOC's only

(1) Wells are listed in the order to be sampled.

DETERMINATION OF

SETTLING TIME OF PARTICLES IN A LIQUID

Particle Size (mm)	Settling Time (sec)
0.075	10.0
0.150	20.0
0.300	40.0
0.600	80.0
1.200	160.0

(The above data are for illustration only)

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**DATA VALIDATION REPORT,
GROUNDWATER QUALITY DATA, SEMI-
ANNUAL SAMPLING, JUNE 2004**

JULY 2004

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 26**

RECEIVED 8/10/2004

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DATA VALIDATION REPORT

CHRONOLOGICAL ORDER OF DATA

ANALYSIS OF DATA

THE WORLD

IN THE WORLD OF THE

HYPERTEXT REPORT

THE WORLD OF THE

HYPERTEXT REPORT



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June 2, 2004

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Ms. Pat Potts
Montana Department of Environmental Quality
Permitting and Compliance Division
WMD / SWP
P.O. Box 200901
Helena, MT 59620

JUN 03 2004

Dept. of Enviro. Quality
Waste & Underground
Tank Management Bureau

Dear Pat,

Enclosed for your review are the proposed monitoring sites and analytical schedule for the June 2004 semiannual groundwater monitoring at the Helena Landfill. There are no changes from the December 2003 sampling regime. Please call if you have any questions or comments.

Sincerely,

Jodi Bingham, P.E.
Environmental Engineer/Chemist

c: John Rundquist, City of Helena
Bill Michaelson, City of Helena
Mike Wignot, Hydrometrics

19	1950	1951
20	1952	1953
21	1954	1955
22	1956	1957
23	1958	1959
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42	1996	1997
43	1998	1999
44	2000	2001
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46	2004	2005
47	2006	2007
48	2008	2009
49	2010	2011
50	2012	2013
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52	2016	2017
53	2018	2019
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123	2158	2159
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126	2164	2165
127	2166	2167
128	2168	2169
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130	2172	2173
131	2174	2175
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147	2206	2207
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168	2248	2249
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**HELENA LANDFILL
JUNE 2004 SAMPLE SITE AND PARAMETER LIST**

Site Name	Parameter
Monitoring Wells ⁽¹⁾	
83-6	Table 1
HL-94-1	Table 1
I-1	Table 1 VOC's only
HL-94-2	Table 1
HL-90-3	Table 1
HL-90-3 (duplicate)	Table 1
INF. GALLERY	Table 1 VOC's only
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HL-99-2	Table 1
MPC-1	Table 1
MPC-5	Table 1
HL-99-1	Table 1
I-4	Table 1 VOC's only
HL-90-1	Table 1
Residential Wells:	
5	Table 1 VOC's only
16	Table 1 VOC's only
40	Table 1 VOC's only
48	Table 1 VOC's only
52	Table 1 VOC's only
57	Table 1 VOC's only
62	Table 1 VOC's only
90	Table 1 VOC's only
Quality Control:	
Trip Blank	Table 1
Rinsate Blank	Table 1

(1) Monitoring wells are listed in the order to be sampled.

HEALTHY LIVING

JUNE 1985/1986

Page	Page
1	1
2	2
3	3
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99	99
100	100

The following are the names of the people who were interviewed for this project.

**CLOSED
CITY OF HELENA LANDFILL
LICENSE NUMBER 90**

HYDROMETRICS

**RESULTS OF MARCH 2004 GROUNDWATER
SAMPLING**

APRIL 2004

**IS LOCATED IN THE GROUNDWATER
MONITORING REPORTS ARCHIVE,
BOX NUMBER 26**

RECEIVED 4/30/2004

11-11-73
11-11-73
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11-11-73

11-11-73
11-11-73

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